IN THE SPECIFICATION

Please add the following new paragraph before the first paragraph on page 1:

CROSS-REFERENCE TO RELATED APPLICATIONS

This patent application is a national stage filing under 35 U.S.C. 371 of International Application No. PCT/GB03/00070, filed January 10, 2003, which claims foreign priority benefits to United Kingdom Application No. 0200476.0, filed January 10, 2002, both of which are incorporated herein by reference.

Please replace the second paragraph on page 1 with the following amended paragraph:

A liquid can be produced from high temperature processing of a solid feedstock (such as wood or other organic based material such as agricultural waste) in a process known as fast or flash pyrolysis or thermolysis. Most pyrolysis processes ~~utilise~~ utilize heat transfer from a hot gas and/or hot solid, such as sand, to the feedstock and rely on the particles of feedstock being small to achieve rapid heating. This process is typically performed in entrained flow, transported, fluid or circulating beds. A further process by which feedstock can be ~~pyrolysed~~ pyrolyzed is ablative pyrolysis. Ablative pyrolysis is the process of applying high-applied mechanical pressure or centrifugal force to particles of feedstock which are moved on a hot surface. This process has the advantages that heat transfer is more effective, the use of inert or transport gas can be ~~minimised~~ minimized, and much larger particles of feedstock can be used than is typically used in fluid or circulatory beds.

Please replace the third paragraph beginning on page 5 and continuing on page 6 with the following amended paragraph:

Referring now to FIG. 3, an ablative thermolysis apparatus according to the present invention comprises a sealable feedstock feeder 10 connected to an ablative thermolysis reactor 12 via an inlet pipe 14. A nitrogen supply 16 is also connected to the ablative thermolysis reactor 12 and to the feedstock feeder 10, the supply rate of this nitrogen supply 16 to the reactor 12 being adjustable by a flow control valve 18. The ablative thermolysis reactor 12 comprises a sealable circular cylindrical reaction vessel 20, the internal wall of which defines an ablative surface 20a. An annular band heater 22 is mounted around and in contact with the reaction vessel 20 and

arranged to heat the ablative surface 20a in use. The ablative thermolysis reactor 12 also has a central horizontally mounted drive shaft 24 which is driven by a variable speed motor 26. Blades 28 (described with reference to FIG. 4) are connected to the drive shaft 24. The ablative thermolysis apparatus further comprises a product collection system 30 downstream of the reactor 12. The product collection system 30 has a cyclone char collector 32 and a condenser 34 connected in series to the ablative thermolysis reactor 12. An electrostatic precipitation chamber 36 including a precipitation electrode ~~36a~~ (not shown) is provided downstream of the condenser 34 with a liquid recirculation pump 35 provided to return cooled pyrolysis liquids to the top of the precipitation chamber 36 to prevent accumulation of liquids on the precipitation electrode ~~36a~~. The electrostatic precipitation chamber 36 is vented to the atmosphere via a gas flow meter.

Please replace the second paragraph on page 7 with the following amended paragraph:

The cylindrical reaction vessel 20 has flanged regions (not shown) provided at both ends, and is sealable by means of front and back plates 38, 40 (FIG. 3) which can be attached by means of bolts to the flanged regions in conjunction with a shaft seal (not shown). In this embodiment, the shaft seal is a pressure seal maintained through the use of an air cooled seal housing containing an ~~aluminium~~ aluminum /bronze bush and a high temperature polymer seal. The plates 38, 40 also allow attachment of the reaction vessel 20 between the inlet pipe 14 from the feedstock feeder 10 and the product collection system 30. The drive shaft 24, the nitrogen gas supply 16 and the feedstock inlet 14 enter the reaction vessel 20 through the front plate 38, and the product gases and char exit to the product collection system 30 through the rear plate 40.

Please replace the first paragraph on page 9 with the following amended paragraph:

A further embodiment of a thermolytic reactor according to the present invention particularly suited to large scale applications is shown in FIG. 5. In this embodiment a plurality of blades 28 are axially spaced along the length of the inner drum 37. In addition, a plurality of feedstock pipes 14 are provided at spaced intervals along the length of vessel 20. A corresponding number of ~~themolysis~~ thermolysis gas/vapour outlets 42 are provided on the opposite side of the vessel 20 (i.e. angularly spaced by 180° from the inlet pipes 14). The inlet pipes 14 and the gas/vapour outlets 42 are positioned to deposit or withdraw material, into or out of the reaction vessel 20 respectively, in the spacings between adjacent pairs of axially spaced blades 28. In

this embodiment the reaction vessel 20 is positioned vertically such that the respective feedstock inlet pipes 14 enter the vessel 20 above the position of one of the axially spaced blades 28. In a modification of this embodiment the blades 28 are axially staggered along the length of the reaction vessel 20 and are overlapping to ensure that the whole ablative surface 20a is swept by the blades 28.